

Abstract

The present invention discloses a process of applying onto substrates thin film coatings of porous ceramic incorporating metal particles and composites obtained by 5 this process. The process includes applying solutions of organic precursor(s) of porous ceramic(s) and organic precursor(s) of a metal or metals onto a substrate, drying and decomposing the precursors to form a composite. The obtained composites can vary greatly in structure depending on the physical properties of the substrate, the ceramic precursor(s) selected for the application and the post- 10 treatment operations, and may be used in preparing catalysts, gas sensors, and for depositing thin metal films and other applications.